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Frank C. Eisenschenk
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REQUEST FOR CERTIFICATE OF
CORRECTION UNDER 37 CFR 1.322
AND 1.323
Docket No. UF-387

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Arthur Rick Alleman, Anthony F. Barbet
Issued : December 4, 2007
Patent No. : 7,304,139
For : Polynucleotides and Polypeptides of Anaplasma Phagocytophilum and Methods of Using the Same

Mail Stop Certificate of Corrections Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR CERTIFICATE OF CORRECTION
UNDER 37 CFR 1.322 (OFFICE MISTAKE)

Sir:

A Certificate of Correction for the above-identified patent has been prepared and is attached hereto.

In the left-hand column below is the column and line number where errors occurred in the patent. In the right-hand column is the page and line number in the application where the correct information appears.

Patent Reads:

Column 5, line 22:

“(cytotoxic T-lymphocyte)”

Column 15, line 42:

“0.1 mg/ml”

Application Reads:

Page 7, line 23:

--(cytotoxic T-lymphocyte)--

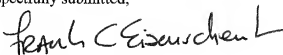
Page 23, line 10:

--0.1 mg/ml--.

A true and correct copy of pages 7 and 23 of the specification as filed which supports Applicants' assertion of the errors on the part of the Patent Office accompany this Certificate of Correction.

Approval of the Certificate of Correction is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink that reads "Frank C. Eisenschenk". The signature is written in a cursive style with a large, stylized "L" at the end.

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FCE/yvs/sl

Attachments: Certificate of Correction
Copies of pages 7 and 23 of the specification as filed

position of the SEQ ID NO: indicated in the table and a C-terminal amino acid residue that, likewise, corresponds to an amino acid position of the SEQ ID NO: indicated in the table. Any polypeptide fragment listed in the appended tables may be included or specifically excluded from the subject invention.

[0022] Fragments, as described herein, can be obtained by cleaving the polypeptides of the invention with a proteolytic enzyme (such as trypsin, chymotrypsin, or collagenase) or with a chemical reagent, such as cyanogen bromide (CNBr). Alternatively, polypeptide fragments can be generated in a highly acidic environment, for example at pH 2.5. Such polypeptide fragments may be equally well prepared by chemical synthesis or using hosts transformed with an expression vector according to the invention. The transformed host cells contain a nucleic acid, allowing the expression of these fragments, under the control of appropriate elements for regulation and/or expression of the polypeptide fragments. Various polypeptide fragments encompassed within the scope of the subject invention are provided in Table 3. The cleavage point indicated in the table is at the carboxy group of the amino acid indicated in the table; the numerical value indicated in Table 3 corresponds to the amino acid at the identical position in SEQ ID NO: 2.

[0023] In certain preferred embodiments, fragments of the polypeptides disclosed herein retain at least one property or activity of the full-length polypeptide from which the fragments are derived. Thus, fragments of the polypeptide of SEQ ID NOs: 2, 3 or 4 have one or more of the following properties or activities: a) the ability to: 1) specifically bind to antibodies specific for SEQ ID NO: 2, 3, 4; and/or 2) specifically bind antibodies found in an animal or human infected with *A. phagocytophilum*; b) the ability to bind to, and activate T-cell receptors (CTL (cytotoxic T-lymphocyte) and/or HTL (helper T-lymphocyte receptors)) in the context of MHC Class I or Class II antigen that are isolated or derived from an animal or human infected with *A. phagocytophilum*; 3) the ability to induce an immune response in an animal or human; 4) the ability to induce a protective immune response in an animal or human against *A. phagocytophilum*; and/or 5) the ability to direct the extracellular secretion of a polypeptide (e.g., a signal peptide such as SEQ ID NO: 4).

[0060] $T_m = 81.5^\circ\text{C} + 16.6 \log[\text{Na}^+] + 0.41(\%G+C) - 0.61(\%\text{formamide}) - 600/\text{length of duplex in base pairs}.$

[0061] Washes are typically carried out as follows:

(1) twice at room temperature for 15 minutes in 1X SSPE, 0.1% SDS (low stringency wash);

(2) once at $T_m - 20^\circ\text{C}$ for 15 minutes in 0.2X SSPE, 0.1% SDS (intermediate stringency wash).

[0062] For oligonucleotide probes, hybridization can be carried out overnight at $10-20^\circ\text{C}$ below the melting temperature (T_m) of the hybrid in 6X SSPE, 5X Denhardt's solution, 0.1% SDS, 0.1 mg/ml denatured DNA. T_m for oligonucleotide probes can be determined by the following formula:

[0063] $T_m(^{\circ}\text{C}) = 2(\text{number T/A base pairs}) + 4(\text{number G/C base pairs})$ (Suggs *et al.* [1981] *ICN-UCLA Symp. Dev. Biol. Using Purified Genes*, D.D. Brown [ed.], Academic Press, New York, 23:683-693).

[0064] Washes can be carried out as follows:

(1) twice at room temperature for 15 minutes 1X SSPE, 0.1% SDS (low stringency wash);

(2) once at the hybridization temperature for 15 minutes in 1X SSPE, 0.1% SDS (intermediate stringency wash).

[0065] In general, salt and/or temperature can be altered to change stringency. With a labeled DNA fragment >70 or so bases in length, the following conditions can be used:

Low:	1 or 2X SSPE, room temperature
Low:	1 or 2X SSPE, 42°C
Intermediate:	0.2X or 1X SSPE, 65°C
High:	0.1X SSPE, 65°C .

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 7,304,139

Page 1 of 1

APPLICATION NO.: 10/696,019

DATED : December 4, 2007

INVENTOR : Arthur Rick Alleman, Anthony F. Barbet

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 5.

Line 22, "(cytptoxic T-lymphocyte)" should read --(cytotoxic T-lymphocyte)--.

Column 15.

Line 42, "0.1 mg/ml" should read --0.1 mg/ml--.

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